REMARKS

Applicants thank the Examiner for the thorough examination given the present application.

Status of the Claims

Claims 1, 12-14, and 16-36 will be pending in the above-identified application with claims 1, 12-14, 16, and 34-36 standing ready for further action on the merits and remaining claims 17-33 being withdrawn from consideration based on an earlier restriction requirement of the Examiner. Claim 1 has been amended in accordance with the Examiner's suggestion during the interview and also incorporates the subject matter of claim 15. As such, claim 15 has been cancelled herein. Thus, no new matter has been added.

Applicants submit that the present Amendment is merely formal in nature, is in accordance with the Examiner's instructions, reduces the number of issues under consideration, and places the case in condition for allowance. Alternatively, entry of the present amendment is proper to place the claims in better form for appeal.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

Statement of the Substance of the Interview

Applicants would like to thank the Examiner for his time during the interview on June 12, 2009. Applicants appreciate the courtesies extended to them in this application. In compliance with MPEP 713.04, Applicants submit the following remarks.

The Interview Summary sufficiently summarizes the discussions during the interview. During the interview, the Examiner indicated that the rejection under 35 U.S.C. § 112 would be overcome if claim 1 were amended as done in the present Amendment. As such, Applicants believe that the claims are now in condition for allowance. Should the Examiner believe that there remains any outstanding issues, Applicants respectfully request that the Examiner contact Applicants' Representative so as to expedite resolution of these outstanding issues, via an Examiner's Amendment or the like.

Issues under 35 U.S.C. § 112

Claims 1, 12-16, and 34-36 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner asserts that the limitation "wherein the powder coating (A) comprises a polyester as a resin and a blocked isocyanate which is blocked with ε-caprolactam as a curing agent" of claim 1 is not supported by the present specification. Applicants respectfully traverse in view of amended claim 1.

During the interview, the Examiner indicated that if claim 1 were amended as done by the Applicants, then the outstanding rejection would be overcome. Accordingly, Applicants respectfully request that the rejection be removed.

Claim Rejections under 35 U.S.C. § 103

1) Claims 1 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Umehara et al. '202 (US 5,491,202) in view of Nakamura et al. '073 (US 6,265,073) and as evidenced by Nozaki et al. '470 (US 5,229,470).

2) Claims 12-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Umehara et al. '202 in view of Nakamura et al. '073 and as evidenced by Nozaki et al. '470 in view of Itakura et al. '145 (US 6,146,145).

3) Claim 15 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Umehara et al. '202 in view of Nakamura et al. '073 and as evidenced by Nozaki et al. '470 in view of Satoh et al. '694 (EP 0,950,694).

4) Claim 16 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Umehara et al. '202 in view of Nakamura et al. '073 and as evidenced by Nozaki et al. '470 in view of Shiomi et al. '349 (US 5,523,349).

5) Claims 34-36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Umehara et al. '202 in view of Nakamura et al. '073 and as evidenced by Nozaki et al. '470 in view of Harada et al. '420 (US 6,509,420) and Ohkoshi et al. '487 (US 5,945,487).

6) Claims 1 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Umehara et al. '202 in view of Nakamura et al. '073, Nozaki et al. '470, and Ring et al. '524 (US 6,531,524).

7) Claims 12-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Umehara et al. '202 in view of Nakamura et al. '073, Nozaki et al. '470, and Ring et al. '524 in view of Itakura et al. '145.

8) Claim 15 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Umehara et al. '202 in view of Nakamura et al. '073, Nozaki et al. '470, and Ring et al. '524 in view of Satoh et al. '694.

9) Claim 16 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Umehara et al. '202 in view of Nakamura et al. '073, Nozaki et al. '470, and Ring et al. '524 in view of Shiomi et al. '349.

10) Claims 34-36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Umehara et al. '202 in view of Nakamura et al. '073, Nozaki et al. '470, and Ring et al. '524 in view of Harada et al. '420 and Ohkoshi et al. '487.

Applicants respectfully traverse. Reconsideration and withdrawal of these rejections are respectfully requested based on the following considerations.

Legal Standard for Determining Prima Facie Obviousness

MPEP 2141 sets forth the guidelines in determining obviousness. First, the Examiner has to take into account the factual inquiries set forth in *Graham v. John Deere*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), which has provided the controlling framework for an obviousness analysis. The four *Graham* factors are:

(a) determining the scope and content of the prior art;

(b) ascertaining the differences between the prior art and the claims in issue;

(c) resolving the level of ordinary skill in the pertinent art; and

(d) evaluating any evidence of secondary considerations.

Graham v. John Deere, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

Second, the Examiner has to provide some rationale for determining obviousness. MPEP 2143 sets forth some rationales that were established in the recent decision of *KSR International Co. v Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007). Exemplary rationales that may support a conclusion of obviousness include:

(a) combining prior art elements according to known methods to yield predictable results;

(b) simple substitution of one known element for another to obtain predictable results;

(c) use of known technique to improve similar devices (methods, or products) in the same way;

(d) applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;

(e) "obvious to try" – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success

(f) known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;

(g) some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

As the MPEP directs, all claim limitations must be considered in view of the cited prior art in order to establish a *prima facie* case of obviousness. *See* MPEP 2143.03.

Distinctions over the Cited References

One of ordinary skill in the art would know that the dissociation reaction of the blocked isocyanate cannot be adjusted by controlling the amount of a curing catalyst. Accordingly, in the present invention, the blocking agent is limited to ε-caprolactam in the powder coating (A) and to at least one blocking agent selected from the group consisting of methyl isobutyl ketone oxime, methyl ethyl ketone oxime, 1,2-pyrazole, 3,5-dimethylpyrazole, 1H-1,2,4-triazole, 1H-1,2,3-triazole, 1H-1,2,4-triazole-3-thiol, and 1H-1,2,3-triazolo[4,5-b]pyridine in the powder coating (B) while increasing the speed of the dissociation reaction of the blocked isocyanate in the powder coating (B) in comparison with that in the powder coating (A) (see examples). One of ordinary skill in the art would know that the dissociation temperature differs by changing the

kind of the blocking agent while using the same kind of isocyanate. Thus, curing time is changed.

In stark contrast from the present invention where different curing rates depend on different dissociation rates of the blocking agents of the blocked isocyanate compounds, Umehara et al. '202 focus only on different hydroxyl values of the polyester resins. Accordingly, Umehara et al. '202 never disclose the present invention.

Specifically, in the present invention, the average particle size of the powder coating (B) is adjusted to 25 μm or less, while the average particle size of the powder coating (A) is adjusted to the range within ±15% of the average particle size of the powder coating (B). Thereby, as shown in the following table (which is condensed from Table 2 on page 34 of the present specification), the present invention produces unexpected results in terms of Lack of Hiding, Hiding Film Thickness, and Finishing Appearance due to uneven gloss.

Ex. No.	Powder Coating (A)	Average Particle Size (μm)	Powder Coating (B)	Average Particle Size (μm)	Gloss	Lack of Hiding	Hiding Film Thickness	Finishing Appearance	Pinhole Limit Film Thickness
1	A1	35	B2	35	39	○	100	○	100
2	A1	18	B2	18	40	◎	60	◎	100
4	A1	35	B3	35	27	○	100	○	80
5	A1	18	B3	18	29	◎	60	◎	80

As the Examiner acknowledges at page 7, lines 5-6 in the outstanding Office Action, Umehara et al. '202 do not disclose that the powder coating (B) has an average particle size of 25 μm or less and the difference in the particle sizes between (A) and (B) is within ±15%.

Thus, the Examiner relies on Satoh et al. '694 to overcome this deficiency. Satoh et al. '694 disclose that, when the average particle size exceeds 30 μm, the particle, when formed into a film, may provide a poor surface smoothness. In Umehara et al. '202, however, mat appearance is brought about by irregularity of the coating film (col. 7, line 43 to col. 8, line 20; Fig. 1). Accordingly, one of ordinary skill in the art would have no reason or rationale to combine Satoh et al. '694, where surface smoothness is desired, with Umehara et al. '202, requiring irregularity of the coating film. According to MPEP 2143.01, the combination of

references cannot change the principle of operation of the primary reference. Therefore, a *prima facie* case of obviousness has not been established, and withdrawal of the outstanding rejections is respectfully requested.

Furthermore, Nakamura et al. '073 disclose a solvent-based coating and not a powder coating (col. 18, lines 26-27 and the examples). On page 5 of the outstanding Office Action, the Examiner states that Nakamura et al. '073 disclose advantages of using the blocked isocyanate compounds from the viewpoints of weather resistance and storage stability. However, since Nakamura et al. '073 relate to a solvent-based coating, the technical effects meant by the term "storage stability" are different between the solvent-based coating and the powder coating.

A powder coating should be in powder form at a preparation step, a storage step, and a use step. However, if any unsuitable content is used for a powder coating, even though the coating is in powder form at a preparation step, powder is aggregated to each other due to fusion-bonding, etc. at a storage step so as to cause "blocking." Thus, the coating is not in powder form at a use step (i.e., it becomes an agglomerate of resin).

In contrast, regarding a solvent-based coating, one does not need to consider fusion-bonding at a storage step. Accordingly, for a solvent-based coating, one would focus on how to avoid gelling of the coating from the viewpoint of reactivity of the coating.

In Nakamura et al. '073, an oligomer having a molecular weight of 2,000 or less is essential for the component (B) (col. 11, lines 61-64). One of ordinary skill in the art would know that use of a compound having such a low molecular weight for a powder coating could promote the above-mentioned blocking at a storage step. Thus, Nakamura et al. '073 actually teach away from the present invention.

As noted by the Examiner, Nakamura et al. '073 refers to "VESTANAT B 1358/100" comprising methyl ethyl ketone oxime as the blocking agent of the blocked isocyanate compounds. This compound, however, is not used in the examples. Thus, the properties of the compound as a blocked isocyanate compound are unclear from the disclosure of Nakamura et al. '073. Especially for obtaining a matte film by differentiating curing rates, information regarding curing ability is very important. However, Nakamura et al. '073 only refer to the blocked isocyanate compound at one line.

As noted above, the term "storage stability" has different meanings depending on the form of the coating. A powder coating is not a coating prepared merely by removing a solvent from a solvent-based coating. Thus, one of ordinary skill in the art would not refer to Nakamura et al. '073 for preparing a powder coating.

According to MPEP 2143.01, the combination of references cannot change the principle of operation of the primary reference or render the reference inoperable for its intended purpose. Since Nakamura et al. '073 relate only to solvent-based coatings, it is improper to apply its disclosure to a powder coating, which has properties and issues distinct from a solvent-based coating. Therefore, a *prima facie* case of obviousness has not been established, and withdrawal of the outstanding rejections is respectfully requested.

Turning to Nozaki et al. '470, the reference discloses a powder coating comprising two kinds of polyester resins having different hydroxyl values and a blocked isocyanate compound as a curing agent. The matte coating film of Nozaki et al. '470 is obtained by making use of different curing rates depending on the different hydroxyl values. Nozaki et al. '470 fail to disclose making use of different dissociation rates of the blocking agent of the blocked isocyanate compounds.

With respect to Itakura et al. '145, the reference discloses a color-matching method. However, Itakura et al. '145 do not disclose differentiating reactivity of powder coatings and obtaining a matte film by controlling the reactivity. Accordingly, one of ordinary skill in the art would not have a reason or rationale to apply Itakura et al. '145 with the other cited references. Furthermore, Itakura et al. '145 refer to the relationship between an amount of the curing agent and the color of the obtained coating film (col. 14, lines 5-11). In contrast, in order to obtain a matte coating film, the present invention makes use of change in light-transmittable properties, which is described as an undesirable effect in Itakura et al. '145.

For the reasons given above, Applicants respectfully submit that the Examiner has failed to make a *prima facie* case of obviousness. First, the invention must be considered as a whole. (MPEP 2141.02(I)). It is improper for the Examiner to take parts from several pieces of prior art and combine them in a piecewise manner for the purposes of anticipating or rendering obvious the present invention. As recited in MPEP 2141.02, the claimed invention as a whole must be

considered rather than selecting specific elements from a multitude of prior art in order to come to Applicants' claimed invention.

Second, Applicants contend that the Examiner has indulged in impermissible hindsight in making the obviousness rejection. That is, the outstanding Office Action merely reflects the piecewise combination of various elements of various patents, which directly contradicts the rationale of MPEP 2143.01 that the "fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish *prima facie* obviousness."

Third, all of the claim limitations must be disclosed by the cited references. As discussed above, Umehara et al. '202 in view of Nakamura et al. '073 and as evidenced by Nozaki et al. '470, with or without the other cited references, fail to disclose all of the claim limitations of independent claim 1, and those claims dependent thereon. Accordingly, the combination of references does not render the present invention obvious. Furthermore, the cited references or the knowledge in the art provide no reason or rationale that would allow one of ordinary skill in the art to arrive at the present invention as claimed. Therefore, a *prima facie* case of obviousness has not been established, and withdrawal of the outstanding rejection is respectfully requested. Any contentions of the USPTO to the contrary must be reconsidered at present.

Double Patenting

Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 10 of copending Application No. 11/344,009 in view of Klaren '035 (US 3,842,035). Applicants respectfully traverse this rejection for the following reasons.

Applicants respectfully submit that the present application is the earlier filed application of the present application and the '009 Application. Also, this rejection is a provisional rejection for non-finalized claims between two applications, and if this rejection is the only rejection remaining in this application, Applicants respectfully submit that this rejection should be withdrawn. See MPEP 804.

CONCLUSION

A full and complete response has been made to all issues as cited in the Office Action. Applicants have taken substantial steps in efforts to advance prosecution of the present application. Thus, Applicants respectfully request that a timely Notice of Allowance issue for the present case clearly indicating that each of claims 1, 12-16, and 34-36 are allowed and patentable under the provisions of title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad M. Rink, Reg. No. 58,258 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By _____

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